AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in the captioned patent application:

1. (Original) An implantable device comprising:

a housing to be secured to a patient's bone;

one or more components mounted in the housing; and

at least one osseointegrating protuberance extending from a surface of the housing.

2. (Original) The implantable device of claim 1, wherein the housing surface from which the at least one osseointegrating protuberance extends comprises a housing surface adapted to abut the patient's bone.

3. (Withdrawn) The implantable device of claim 1, wherein the housing surface from which the at least one osseointegrating protuberance extends comprises a housing surface adjacent to a housing surface adapted to abut the patient's bone.

4. (Original) The implantable device of claim 1, wherein the at least one osseointegrating protuberance extends from the housing toward the bone when the device is in an implant orientation adjacent the bone.

5. (Original) The implantable device of claim 4, wherein the at least one osseointegrating protuberance comprises two osseointegrating protuberances having longitudinal axes that lie in a same plane at opposing angles relative to an implant axis substantially orthogonal with an abutting housing surface and the bone surface.

6. (Original) The implantable device of claim 5, wherein the opposing angles between the longitudinal axes of the osseointegrating protuberances and the implant axis are each approximately between 5 and 85 degrees.

7. (Original) The implantable device of claim 1, wherein the tissue-stimulating prosthesis is a cochlear prosthesis.

8. (Original) The implantable device of claim 7, wherein the housing and the one or more components comprise a stimulator unit of the cochlear implant.

9. (Original) The implantable device of claim 8, wherein a receiver antenna is operatively connected to the housing, and wherein the housing and the one or more components comprise a stimulator receiver unit of the cochlear prosthesis.

10. (Original) The implantable device of claim 1, wherein the implantable device is configured to be secured to the bone in a periosteal pocket formed in the bone.

11. (Original) The implantable device of claim 1, wherein the bone is a skull bone.

12. (Original) The implantable device of claim 11, wherein the periosteal pocket is formed in a mastoid process.

13. (Withdrawn) The implantable device of claim 1, wherein the at least one osseointegrating protuberance is configured to be permanently implanted in the patient's bone.

14. (Original) The implantable device of claim 1, wherein the at least one osseointegrating protuberance is configured to be extricated from the bone subsequent to osseointegration.

15. (Withdrawn) The implantable device of claim 1, wherein the at least one osseointegrating protuberance is configured to prevent significant relative lateral movement between the implanted device and the patient's bone.

16. (Withdrawn) The implantable device of claim 1, wherein the at least one osseointegrating protuberance comprises at least one loop member.

17. (Withdrawn) The implantable device of claim 1, wherein the at least one osseointegrating protuberance comprises at least one aperture.

18. (Withdrawn) The implantable device of claim 1, wherein the at least one osseointegrating protuberance comprises at least one substantially smooth shaft.

19. (Withdrawn) The implantable device of claim 18, wherein the at least one substantially smooth shaft comprises a plurality of substantially smooth shafts each having a longitudinal axis, wherein the longitudinal axes of the shafts lie in different planes.

20. (Original) The implantable device of claim 1, wherein the at least one osseointegrating protuberance comprises at least one threaded shaft.

21. (Original) The implantable device of claim 20, further comprising at least one elongate flange extending from the housing in a direction substantially parallel with the bone when the device is in an implantable position, and wherein each of the at least one threaded shaft is operationally disposed on one of the at least one flange so as to be laterally offset from the housing.

22. (Original) The implantable device of claim 21, wherein the at least one laterally offset threaded shaft is configured to be manipulated to extricate the shaft from the bone subsequent to osseointegration.

23. (Original) The implantable device of claim 22, wherein the at least one laterally offset threaded shaft is a screw.

24. (Original) The implantable device of claim 21, wherein the at least one elongate flange and housing surfaces are non-osseointegrating.

25. (Withdrawn) The implantable device of claim 1, wherein the at least one osseointegrating protuberance comprises at least one fastening member mounted to a support.

26. (Withdrawn) The implantable device of claim 25, wherein the at least one fastening member comprises one or more of the group consisting of:

a screw;

a clip; and

a nail.

27. (Original) The implantable device of claim 1, wherein the at least one osseointegrating protuberance is formed of or coated with one of either titanium or titanium alloy.

28. (Original) The implantable device of claim 1, wherein the at least one osseointegrating protuberance has a surface treatment that encourages osseointegration.

29. (Original) The implantable device of claim 1, wherein the housing is coated with a material that prevents osseointegration.

30. (Original) The implantable device of claim 29, wherein the housing is formed of a material coated with a biocompatible silicone.

31. (Original) The implantable device of claim 29, wherein the housing is formed from at least one of a biocompatible metallic, ceramic and polymeric material.

32. (Original) A tissue-stimulating prosthesis comprising:

an implantable stimulator unit comprising:

a housing to be secured to a patient's bone;

one or more components mounted in the housing; and

at least one osseointegrating protuberance extending from a surface of the housing toward the bone when the device is in an implant orientation adjacent the bone.

33. (Original) The prosthesis of claim 32, wherein the tissue-stimulating prosthesis is a cochlear implant, and wherein the bone is a skull bone of the patient.

34. (Original) The prosthesis of claim 32, wherein the stimulator unit is configured to be secured to the bone in a periosteal pocket formed in the bone.

35. (Original) The prosthesis of claim 32, wherein the housing surface from which the at least one osseointegrating protuberance extends comprises a housing surface adapted to abut the patient's bone.

36. (Original) The prosthesis of claim 35, wherein the at least one osseointegrating protuberance comprises two osseointegrating protuberances having longitudinal axes that lie in a same plane at opposing angles relative to an implant axis substantially orthogonal with an abutting surface of the housing and the bone surface.

37. (Original) The prosthesis of claim 36, wherein the opposing angles between the longitudinal axes of the osseointegrating protuberances and the implant axis are each approximately between 5 and 85 degrees.

38. (Original) The prosthesis of claim 32, wherein the at least one osseointegrating protuberance is configured to be extricated from the bone subsequent to osseointegration.

39. (Original) The prosthesis of claim 32, wherein the at least one osseointegrating protuberance is configured to prevent substantial relative lateral movement between the implanted device and the patient's bone.

40. (Withdrawn) The prosthesis of claim 32, wherein the at least one osseointegrating protuberance comprises at least one loop member.

41. (Withdrawn) The prosthesis of claim 32, wherein the at least one osseointegrating protuberance comprises at least one aperture.

42. (Withdrawn) The prosthesis of claim 32, wherein the at least one osseointegrating protuberance comprises at least one substantially smooth shaft.

43. (Withdrawn) The prosthesis of claim 42, wherein the at least one substantially smooth shaft comprises a plurality of substantially smooth shafts each having a longitudinal axis, wherein the longitudinal axes of the shafts lie in different planes.

44. (Original) The prosthesis of claim 32, wherein the at least one osseointegrating protuberance comprises at least one threaded shaft.

45. (Original) The prosthesis of claim 44, further comprising at least one elongate flange extending from the housing in a direction substantially parallel with the bone when the device is in an implantable position, and wherein each of the at least one threaded shaft is operationally disposed on one of the at least one flange so as to be laterally offset from the housing.

46. (Original) The prosthesis of claim 45, wherein the at least one laterally offset threaded shaft is configured to be manipulated to extricate the shaft from the bone subsequent to osseointegration.

47. (Original) The prosthesis of claim 32, wherein the at least one osseointegrating protuberance comprises features that facilitate osseointegration.

48. (Original) The prosthesis of claim 45, wherein the at least one elongate flange is non-osseointegrating.

49. (Withdrawn) The prosthesis of claim 32, wherein the at least one osseointegrating protuberance comprises at least one fastening member mounted to a support.

50. (Withdrawn) The prosthesis of claim 49, wherein the at least one fastening member comprises one or more of the group consisting of:

a screw;

a clip; and

a nail.

51. (Original) The prosthesis of claim 32, wherein the at least one osseointegrating protuberance is formed of one of either or titanium alloy.

52. (Original) The prosthesis of claim 32, wherein the at least one osseointegrating protuberance is coated with one of either titanium or titanium alloy.

53. (Original) The prosthesis of claim 32, wherein the at least one osseointegrating protuberance has a surface treatment that encourages osseointegration.

54. (Original) The prosthesis of claim 32, wherein the housing is coated with a material that prevents osseointegration.

55. (Original) The prosthesis of claim 54, wherein the housing is formed of titanium coated with a biocompatible silicone.

56. (Original) The prosthesis of claim 54, wherein the housing is formed from at least one of a biocompatible metallic, ceramic and polymeric material.

57. (Withdrawn) A housing for an implantable device to be secured to a patient's bone, comprising:

at least one osseointegrating protuberance extending from one or more surfaces of the housing adapted to abut the patient's bone, wherein the at least one osseointegrating protuberance is configured to be extricated from the bone subsequent to osseointegration.

58. (Withdrawn) The housing of claim 57, wherein the at least one osseointegrating protuberance extends from the housing toward the bone when the device is in an implant orientation adjacent the bone.

59. (Withdrawn) The housing of claim 58, wherein the at least one osseointegrating protuberance comprises two osseointegrating protuberances having longitudinal axes that lie in a same plane at opposing angles relative to an implant axis substantially orthogonal with an abutting surface of the housing and the bone surface.

60. (Withdrawn) The housing of claim 59, wherein the opposing angles between the longitudinal axes of the osseointegrating protuberances and the implant axis are each approximately between 5 and 85 degrees.

61. (Withdrawn) The housing of claim 57, wherein The housing is a component of a tissue-stimulating prosthesis.

62. (Withdrawn) The housing of claim 57, wherein the tissue-stimulating prosthesis is a cochlear implant.

63. (Withdrawn) The housing of claim 62, wherein the one or more components mounted in the housing function as a stimulator unit of the cochlear implant.

64. (Withdrawn) The housing of claim 57, wherein The housing is configured to be secured to the bone in a periosteal pocket formed in the bone.

65. (Withdrawn) The housing of claim 57, wherein the bone is a skull bone of the patient.

66. (Withdrawn) The housing of claim 65, wherein the periosteal pocket is formed in a mastoid process.

67. (Withdrawn) The housing of claim 65, wherein the at least one osseointegrating protuberance is configured to prevent substantial relative lateral movement between the implanted device and the patient's bone.

68. (Withdrawn) The housing of claim 57, wherein the at least one osseointegrating protuberance comprises at least one substantially smooth shaft.

69. (Withdrawn) The housing of claim 68, wherein the at least one substantially smooth shaft comprises a plurality of substantially smooth shafts each having a longitudinal axis, wherein the longitudinal axes of the shafts lie in different planes.

70. (Withdrawn) The housing of claim 57, wherein the at least one osseointegrating protuberance comprises at least one threaded shaft.

71. (Withdrawn) The housing of claim 70, further comprising at least one elongate flange extending from the housing in a direction substantially parallel with the bone when the device is in an implantable position, and wherein each of the at least one threaded shaft is operationally disposed on one of the at least one flange so as to be laterally offset from the housing.

72. (Withdrawn) The housing of claim 71, wherein the at least one laterally offset threaded shaft is configured to be manipulated to extricate the shaft from the bone subsequent to osseointegration.

73. (Withdrawn) The housing of claim 69, wherein the at least one laterally offset threaded shaft is a screw.

74. (Withdrawn) The housing of claim 57, wherein the at least one osseointegrating protuberance comprises at least one fastening member mounted to a support.

75. (Withdrawn) The housing of claim 74, wherein the at least one fastening member comprises one or more of the group consisting of:

a screw;

a clip; and

a nail.

76. (Withdrawn) The housing of claim 57, wherein the at least one osseointegrating protuberance is formed of one of either or titanium alloy.

77. (Withdrawn) The housing of claim 57, wherein the at least one osseointegrating protuberance is coated with one of either titanium or titanium alloy.

78. (Withdrawn) The housing of claim 57, wherein the at least one osseointegrating protuberance has a surface treatment that encourages osseointegration.

79. (Withdrawn) The housing of claim 57, wherein the housing is coated with a material that prevents osseointegration.

80. (Withdrawn) The housing of claim 79, wherein the housing is formed of titanium coated with a biocompatible silicone.

81. (Withdrawn) The housing of claim 79, wherein the housing is formed from at least one of a biocompatible metallic, ceramic and polymeric material.

82. (Withdrawn) An implantable device comprising:

housing means for housing one or more components; and

means for osseointegrating by securing the housing means to a patient's bone.

83. (Withdrawn) The implantable device of claim 82, wherein the osseointegrating means comprises at least one osseointegrating protuberance.

84. (Withdrawn) The implantable device of claim 83, wherein the at least one osseointegrating protuberance extends from the housing toward the bone when the device is in an implant orientation adjacent the bone.

85. (Withdrawn) The implantable device of claim 84, wherein the at least one osseointegrating protuberance comprises two osseointegrating protuberances having longitudinal axes that lie in a same plane at opposing angles relative to an implant axis substantially orthogonal with an abutting housing surface and the bone surface.

86. (Withdrawn) The implantable device of claim 85, wherein the opposing angles between the longitudinal axes of the osseointegrating protuberances and the implant axis are each approximately between 5 and 85 degrees.

87. (Withdrawn) The implantable device of claim 82, wherein the tissue-stimulating prosthesis is a cochlear prosthesis.

88. (Withdrawn) The implantable device of claim 87, wherein the housing and the one or more components comprise a stimulator unit of the cochlear implant.